

PROJECT 10073 RECORD CARD

1. DATE 26 June 1963	2. LOCATION Texarkana, Texas		12. CONCLUSIONS <input checked="" type="checkbox"/> Was Balloon <input type="checkbox"/> Probably Balloon <input type="checkbox"/> Possibly Balloon <input type="checkbox"/> Was Aircraft <input type="checkbox"/> Probably Aircraft <input type="checkbox"/> Possibly Aircraft <input type="checkbox"/> Was Astronomical <input type="checkbox"/> Probably Astronomical <input type="checkbox"/> Possibly Astronomical <input type="checkbox"/> Other <input type="checkbox"/> Insufficient Data for Evaluation <input type="checkbox"/> Unknown
3. DATE-TIME GROUP Local _____ GMT 27/0245Z	4. TYPE OF OBSERVATION <input checked="" type="checkbox"/> Ground-Visual <input type="checkbox"/> Ground-Radar <input type="checkbox"/> Air-Visual <input type="checkbox"/> Air-Intercept Radar		
5. PHOTOS <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. SOURCE Civilian		
7. LENGTH OF OBSERVATION 30 minutes	8. NUMBER OF OBJECTS two	9. COURSE Variable	
10. BRIEF SUMMARY OF SIGHTING Two objects in trail, round, with a color of white to orange observed very high in the NW. Initial observation at 45 deg elevation due North. Objects changed course and faded in the North after a half hour observation. Observation at night (1045PM)		11. COMMENTS Description of objects conform with Balloon observations. Duration of sighting consistent with analysis as Balloon. Wind data indicates variable winds at upper altitudes. Direction of flight varied. Nothing presented indicates that this was not a balloon observation.	

3510	19	5880	63.5	2900	50.7	19	12	4.6
5495	20	6200	63.5	3100	46.6	20	3	4.6
3690	21	6500	63.3	2700	43.3	21	3	4.4
5755	22	6810	63.0	3500	40.7	22	357	4.5
3870	23	7110	62.5	3700	37.2	23		
6025	24		61.3		34.7	24	359	7.0
4050	25	7750	60.2	4400	20.4	25		
6295	26		58.9		25.0	26	346	11.6
4230	27	8410	56.6	5500	20.0	27		
6565	28		54.8		15.7	28	341	13.0
4410	29	9080	53.2	6800	11.9	29		
6915	30		51.7		9.2	30	345	10.0
4590	31	9760	50.7	7900	7.6	31		
7105	32		50.1		5.4	32	325	10.5
4770	33	10450	49.7	8900	2.3	33		
7375	34		49.2		359.3	34	312	11.0
4950	35	11100	48.6	9800	356.4	35		
7645	36		47.8		351.7	36	318	12.0
5130	37	11810	47.2	11000	351.5	37		
7915	38		46.7		349.3	38	313	12.0
5310	39	12580	45.7	12200	347.2	39		
8185	40		45.2		346.1	40	376	11.0
5490	41	13300	44.5	13500	346.0	41		
8455	42	12780	43.5	14500	347.0	42	8	15.0
5670	43	14180	42.7	15300	348.6	43		
8730	44	14600	42.2	16000	350.0	44	13	13.2
9005	45		41.7		350.5	45		
6030	46	15380	41.3	17400	351.8	46	31	13.0
9285	47		41.2		354.7	47		
6210	48	16280	41.2	18500	356.2	48	42	10.5
9565	49		41.3		356.3	49		
6390	50	17160	41.6	19200	357.8	50	34	7.0
9850								

90	104	12750	21.1
95	179	13070	40.2
100	155	13920	42.5
105	134	14500	44.4
110	114	15780	46.7
115	96	16840	49.1
120	84	17940	51.8
125	64	19370	54.9
130	50	20890	58.7
135	37	22800	62.7
140	24	25600	
139A	25	25360	68.0

Punched Card Data

Altitude	Direction (degrees)	Speed (m.p.s.)	Card columns	Altitude	Direction (degrees)	Speed (m.p.s.)
Card No. 1			15	Card No. 2		
Type of equipment	8		16	Type of equipment	8	
etc.	130	2	17-21	7	357	5
150 m.	120	4	22-26	8	350	10
300 m.	110	5	27-31	9	341	12
0.5	111	5	32-36	10	331	10
1.0	115	3	37-41	11	313	11
1.5	35	1	42-46	12	915	12
2.0	348	2	47-51	13	336	11
2.5	10	4	52-56	14	10	15
3	10	5	57-61	15	20	13
4	85	1	62-66	16	39	11
5	57	3	67-71	17	36	8
6	15	5	72-76	18	45	7

Coded Data for Transmission

SMV	06920	1110	2111	1107	11003	0102	03404	3605	00107
0209	03609	20106	11006	0606	00410	00109	03610	53615	03422
53221	03123	53628	00225	60414	00515	00921	00823	30825	
				60					

Maximum Wind Speed Data

Min. alt. wind speed 45 m.p.s. or more (m.)		
Alt. of maximum wind speed (m.)		
Max. wind speed (m.p.s.) and dir. (degrees)		
Dir. (degrees) and speed (m.p.s.) of Max. wind		
Enter check if additional levels appear on reverse side.		

Atch 2

Identification: SHREVEPORT, LOUISIANA
 Greater Shreveport Municipal Airport
 Lat. 32°28'N Long. 93°49'W
 Local Standard Time, 90th Meridian
 31 of Station, 79M, RAWIN, GMD-1A

U.S. DEPARTMENT OF COMMERCE
 WEATHER BUREAU

WINDS-ALOFT COMPUTATION SHEET
 (LAND STATION FORM)
 WBAN-20

	Year	Month	Day	Time
Actual time	1963	JUN	25	2330
Scheduled (G.M.T.)	1963	JUN	26	0530
Ascension No.	707			

Slant range (m.) (yds.)	Pibal ht. above sfc. (m.)	Minute	Rawin ht. above surface (m.)	Elevation angle°		Distance from observation point (m.)	Azimuth angle °	Minute	Wind	
	100-gram			Observed	Smoothed				Direction° 360°= N	Speed (m.p.s.)
	14570	51		41.9			358.6	51		
	14860	52	17960	41.9		19900	359.3	52	46	7.7
	15145	53		42.3			0.1	53		
	15425	54	18880	42.7		20400	1.7	54	67	9.2
	15705	55		43.1			3.2	55		
	15985	56	19750	43.3		20800	5.0	56	77	12.5
	16265	57		43.6			7.4	57		
	16545	58	20550	43.8		21300	9.3	58	85	13.0
	16825	59		44.0			11.5	59		
	17105	60	21340	44.4		21600	13.3	60	87	10.7
	17385	61		44.9			14.9	61		
	17670	62	22400	45.3		22100	16.5	62	83	11.0
	17950	63		45.7			18.2	63		
	18235	64	23400	45.9		22600	19.5	64	84	10.8
	18515	65		45.9			21.1	65		
	18795	66	24310	46.1		23200	22.6	66	82	12.0
	19080	67		46.3			24.5	67		
	19360	68	25280	46.2		24100	25.7	68	80	13.0
	19645	69						69		
	19925	70						70		
	20210	71						71		
	20490	72						72		
	20775	73						73		
	21055	74						74		
	21340	75						75		
	21620	76						76		
	21905	77						77		
	22185	78						78		
	22470	79						79		
	22750	80						80		
	23040	81						81		
	23320	82						82		
	23600	83						83		
	23880	84						84		

Wind Direction° 360°= N	Speed (m.p.s.)	Minute	Azimuth angle °	Distance from observation point (m.)	Elevation angle°		Rawin ht. above surface (m.)	Minute	Slant range (m.) (yds.)
					Observed	Smoothed			
		106						106	
		107						107	
		108						108	
		109						109	
		110						110	
		111						111	
		112						112	
		113						113	
		114						114	
		115						115	

Punched Card Data

Altitude (m.)	Direction (degrees)	Speed (m.p.s.)	Card column	Altitude (m.)	Direction (degrees)	Speed (m.p.s.)
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*Stamp the following:
 1. Name of Station
 2. Lat. or long.
 3. Local Standard time, meridian
 4. El. of S.
 5. Method obs., e rawins rawin,
 6. Type of equip., WBRT, GMD-1, GMD-1, SCR-65 theodo

*Altitude in km.,

21088	74						74		
21140	75						75		
21620	76						76		
21905	77						77		
22185	78						78		
22470	79						79		
22750	80						80		
23040	81						81		
23320	82						82		
23600	83						83		
23880	84						84		
24160	85						85		
24440	86						86		
24730	87						87		
25010	88						88		
25300	89						89		
25580	90						90		
25860	91						91		
26140	92						92		
26420	93						93		
26700	94						94		
26980	95						95		
27260	96						96		
27540	97						97		
27820	98						98		
28100	99						99		
28380	100						100		
28660	101						101		
28940	102						102		
29220	103						103		
29500	104						104		
29780	105						105		

Slant range (m.) (yds.)																			
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* Altitude
in km.

Punched Card Data

Altitude#	Direction (degrees)	Speed (m.p.s.)	Card columns	Altitude#	Direction (degrees)	Speed (m.p.s.)
Card No. 3			15	Card No. 4		
Type of equipment	8		16	Type of equipment	8	
19	67	9	17-21	31		
20	78	13	22-26	32		
21	87	12	27-31	33		
22	85	11	32-36	34		
23	83	11	37-41	35		
24	83	11	42-46	36		
25	81	13	47-51	37		
26			52-56	38		
27			57-61	39		
28			62-66	40		
29			67-71	41		
30			72-76	42		

Maximum Wind Speed Data

Min. alt. wind speed 45 m.p.s. or more (m.)		
Alt. of maximum wind speed (m.)		
Dir. (degrees) and speed (m.p.s.) of Max. wind		
Max. alt. wind speed 45 m.p.s. or more (m.)		

Identification

SHREVEPORT, LOUISIANA

Greater Shreveport Municipal Airport

Lat. 32°48'N Long. 93°49'W

Local Standard Time, 90th Meridian

El. of Station, 79M, RAWIN, GMD-1A

U.S. DEPARTMENT OF COMMERCE
WEATHER BUREAUWINDS-ALOFT COMPUTATION SHEET
(LAND STATION FORM)

WBAN-20

	Year	Month	Day	Time
Actual time th mer.	1963	JUN	2 E	0530
Scheduled (G.M.T.)	1963	JUN	2 E	1130
Ascension No.	708			

Type of balloon 1200 GRAM

Orientation, 360° = South

Slant range (m.) (yds.)	Pibal ht. above sfc. (m.) 30 100 gram	Minute	Rawin ht. above surface (m.)	Elevation angle°		Distance from observation point (m.)	Azimuth angle °	Minute	Wind		Rawinsonde Time-Altitude Data			
				Observed	Smoothed				Direction° 360° = N.	Speed (m.p.s.)	Contact	Pressure (mb.)	Altitude (m, m.s.l.)	Elapsed time (min.)
	216 350	1	250	81.6		0	345.1	1		0.0	49	1010	79	0.0
	414 670	2	540	85.9		0	344.4	2		0.0	5	1009	90	0.2
	612 980	3	820	85.4		0	315.9	3		0.0	10	938	720	2.8
	801 1285	4	1100	83.3		100	355.4	4	22	1.5	15	874	1330	4.9
	990 1585	5	1340	79.9		200	18.9	5	25	3.7	20	812	1960	7.2
	1170 1880	6	1610	74.1		450	24.7	6	23	4.5	25	748	2640	9.5
	1350 2170	7	1880	68.0		750	21.3	7	14	5.4	30	691	3300	11.8
	1530 2455	8	2150	63.2		1100	18.5	8	11	4.6	35	636	3990	14.0
	1710 2740	9	2450	61.0		1300	17.1	9	11	3.2	40	584	4660	16.4
	1890 3020	10	2770	60.8		1500	16.8	10	13	3.2	45	534	5340	18.6
	2070 3300	11	3030	60.9		1700	15.3	11	1	3.5	50	486	6040	21.0
	2250 3580	12	3340	60.2		1900	13.3	12	3	4.2	55	442	6770	23.6
	2430 3855	13	3630	59.7		2200	12.7	13	18	3.3	60	400	7350	26.3
	2610 4130	14	3930	60.1		2300	14.1	14	37	1.9	65	360	8300	29.2
	2790 4405	15	4230	60.1		2400	14.8	15	36	2.6	70	323	9080	31.9
	2970 4675	16	4530	60.1		2600	16.9	16	27	3.3	75	287	9900	34.6
	3150 4945	17	4800	59.9		2800	16.7	17	2	3.3	80	256	10690	37.6
	3330 5215	18	5100	59.5		3000	15.1	18	349	3.7	85	225	11510	40.5
	3510 5485	19	5450	59.5		3200	12.9	19	348	3.7	90	197	12360	43.3
	3690 5755	20	5730	58.9		3400	11.6	20	355	5.2	95	172	13230	46.2
	3870 6025	21	5990	57.8		3800	10.1	21	3	6.8	100	149	14140	49.1
	4050 6295	22	6250	56.6		4200	9.9	22	358	5.1	105	127	15100	52.1
	4230 6565	23	6560	56.2		4400	8.5	23	354	5.1	110	108	16090	55.3
	4410 6835	24	6830	54.7		4800	7.9	24	360	6.7	115	90	17200	58.9
	4590 7105	25	7040	53.5		5200	7.3	25			120	73	18480	62.6
	4770 7375	26		52.5			6.5	26	342	7.3	125	58	19930	66.9
	4950 7645	27	7560	51.5		6000	3.6	27			130	44	21670	71.9
	5130 7915	28		49.9			0.3	28	329	10.8	135	30	24130	78.4
	5310 8185	29	8160	48.9		7100	357.9	29			140			
	5490 8455	30		47.9			356.3	30	341	8.6				
	5670 8730	31	8750	47.0		8100	355.6	31			41.8	17.0	27933	86.8
	5850 9005	32		46.4			354.4	32	342	8.8				
	6030 9285	33	9320	45.5		9100	353.9	33						
	6210 9565	34		44.8			352.6	34	331	9.5				
	6390 9850	35	9910	43.9		10200	351.4	35						

Punched Card Data

Altitude	Direction (degrees)	Speed (m.p.s.)	Card columns	Altitude	Direction (degrees)	Speed (m.p.s.)
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U.S. DEPARTMENT OF COMMERCE
WEATHER BUREAU

WINDS-ALOFT COMPUTATION SHEET
(LAND STATION FORM)
WBAN-20

	Year	Month	Day	Time
Actual time th mer.	1963	JUN	26	0530
Scheduled (G.M.T.)	1963	JUN	26	1130
Ascension No. 208				

2

Slant range (m.) (yds.)	Pibal ht. above sfc. (m.)	Minute	Raw in ht. above surface (m.)	Elevation angle°		Distance from observation point (m.)	Azimuth angle °	Minute	Wind	
	100- gram			Observed	Smoothed				Direction° 360°= N	Speed (m.p.s.)
	14570	51		33.4			350.6	51		
	14860	52	14990	32.9		23000	351.3	52	3	12.6
	15145	53		32.8			351.6	53		
	15425	54	15630	32.7		24200	351.8	54	5	9.2
	15705	55		32.7			352.0	55		
	15985	56	16210	32.5		25200	352.6	56	15	10.4
	16265	57		32.3			353.5	57		
	16545	58	16830	32.2		26500	353.9	58	21	11.0
	16825	59		32.4			354.3	59		
	17105	60	17550	32.4		27500	355.1	60	38	9.7
	17385	61		32.5			356.1	61		
	17670	62	18210	32.7		28200	357.1	62	53	12.4
	17950	63		32.7			358.4	63		
	18235	64	18880	32.8		29200	0.1	64	74	12.8
	18515	65		33.2			1.8	65		
	18795	66	19570	33.7		29200	2.9	66	93	11.7
	19080	67		34.5			4.3	67		
	19360	68	20220	34.7		29100	5.5	68	95	11.4
	19645	69		35.1			6.9	69		
	19925	70	20900	35.4		29200	8.3	70	97	11.0
	20210	71		35.9			9.4	71		
	20490	72	21620	36.4		29200	10.6	72	87	9.0
	20775	73		36.4			11.6	73		
	21055	74	22350	36.7		29700	12.3	74	80	10.0
	21340	75		37.1			13.5	75		
	21620	76	23100	37.3		30200	14.8	76	84	10.6
	21905	77		37.5			15.8	77		
	22185	78	23900	37.8		30600	16.8	78	90	10.2
	22470	79		38.1			17.8	79		
	22750	80	24740	38.4		31000	19.1	80	84	14.8
	23040	81		38.3			20.2	81		
	23320	82	25620	38.4		32100	22.6	82	88	16.5
	23600	83		38.7			23.9	83		
	23800	84	26500	39.0		32600	25.5	84	93	13.8

Slant range (m.) (yds.)	Minute	Rain ht. above surface (m.)	Elevation angle ^o		Distance from observation point (m.)	Azimuth angle ^o	Direction ^o 360° = N	Wind Speed (m.p.h.)
			Observed	Smoothed				
	106							
	107							
	108							
	109							
	110							
	111							
	112							
	113							
	114							
	115							

SCR-65
theodol* Altitude
in km., 1000

Punched Card Data

Latitude	Direction (degrees)	Speed (m.p.s.)	Card columns	Latitude	Direction (degrees)	Speed (m.p.s.)
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[illegible]* Altitude
in km.,

Punched Card Data

Altitude	Direction (degrees)	Speed (m.p.s.)	Card columns	Altitude	Direction (degrees)	Speed (m.p.s.)
Card No. 3			15	Card No. 4		
Type of equipment		8	16	Type of equipment		8
19	77	13	17-21	31		
20	94	12	22-26	32		
21	97	11	27-31	33		
22	92	9	32-36	34		
23	83	10	37-41	35		
24	88	10	42-46	36		
25	87	15	47-51	37		
26	91	16	52-56	38		
27	93	14	57-61	39		
28			62-66	40		
29			67-71	41		
30			72-76	42		

Maximum Wind Speed Data

Min. alt. wind speed 45 m.p.s. or more (m.)		
Alt. of maximum wind speed (m.)		
Dir. (degrees) and speed (m.p.s.) of Max. wind		
Max. alt. wind speed 45 m.p.s. or more (m.)		

Identification

SHREVEPORT, LOUISIANA

Gretna Shreveport Municipal Airport

Lat. 32°28'N Long. 93°49'W

Local Standard Time, 90th Meridian

Elev. of Station, 79M. RAWIN. GMD-1A

U.S. DEPARTMENT OF COMMERCE
WEATHER BUREAUWINDS-ALOFT COMPUTATION SHEET
(LAND STATION FORM)

WBAN-20

	Year	Month	Day	Time
Actual time	1968	JUN	28	1130
Scheduled (G.M.T.)	1968	JUN	28	1730
Ascension No.	709			

Type of balloon 600 GRAH

Orientation, 360° = South

Slant range (m.) (yds.)	Pibal ht. above sfc. (m.) <div>30 60 90 120 150</div>	Minute	Rawin ht. above surface (m.)	Elevation angle°		Distance from observation point (m.)	Azimuth angle °	Minute	Wind	
				Observed	Smoothed				Direction° 360° = N.	Speed (m.p.s.)
	216	1	300	81.3		0	275.2	1		0.0
	350									
	414	2	590	88.1		0	289.7	2		0.0
	670									
	612	3	850	84.7		100	57.3	3	92	1.8
	980									
	801	4	1130	77.1		250	94.1	4	101	2.5
	1285									
	990	5	1400	73.5		400	90.3	5	86	3.2
	1585									
	1170	6	1660	68.1		650	87.7	6	83	3.5
	1880									
	1350	7	1930	69.6		700	85.6	7	56	2.2
	2170									
	1530	8	2220	68.4		900	77.7	8	47	2.9
	2455									
	1710	9	2460	68.3		1000	72.8	9	56	1.7
	2740									
	1890	10	2720	68.6		1100	73.6	10	15	1.4
	3020									
	2070	11	3000	70.4		1100	64.5	11	338	2.3
	3300									
	2250	12	3300	70.8		1100	58.6	12	348	2.4
	3580									
	2430	13	3600	71.6		1200	50.6	13	353	3.0
	3855									
	2610	14	3870	71.3		1300	44.2	14	16	2.0
	4130									
	2790	15	4130	70.5		1400	44.6	15	41	3.2
	4405									
	2970	16	4430	68.4		1700	44.8	16	43	4.9
	4675									
	3150	17	4720	66.4		2000	44.2	17	38	5.8
	4945									
	3330	18	5000	64.7		2400	42.8	18	27	5.9
	5215									
	3510	19	5330	62.7		2700	39.6	19	18	6.2
	5485									
	3690	20	5700	61.6		3100	36.8	20	6	5.9
	5755									
	3870	21	6030	60.9		3300	32.3	21	357	7.1
	6025									
	4050	22	6360	59.1		3800	28.6	22	2	8.4
	6295									
	4230	23	6700	57.9		4200	25.6	23		
	6565									
	4410	24		56.8			22.6	24	348	7.2
	6835									
	4590	25	7350	55.9		4900	19.5	25		
	7105									
	4770	26		54.7			15.8	26	353	7.3
	7375									
	4950	27	7970	54.5		5700	15.4	27		
	7645									
	5130	28		53.7			11.9	28	332	10.1
	7915									
	5310	29	8600	52.6		6600	8.2	29		
	8185									
	5490	30		51.8			3.9	30	320	10.4
	8455									
	5670	31	9220	51.0		7500	1.2	31		
	8730									
	5850	32		50.0			358.3	32	322	12.6
	9005									
	6030	33	9900	48.6		8700	355.0	33		
	9285									
	6210	34		46.0			353.9	34	337	13.8
	9565									
	6390	35	10550	45.5		10200	357.2	35		
	9890									

Rawinsonde Time-Altitude Data

Contact	Pressure (mb.)	Altitude (m., m.s.l.)	Elapsed time (min.)
5.0	1010	79	0.0
5	1010	79	0.0
10	945	660	2.1
15	882	1260	4.2
20	822	1860	6.0
25	764	2470	8.7
30	709	3080	11.1
35	656	3730	13.1
40	605	4370	15.3
45	556	5040	18.1
50	510	5740	20.2
55	466	6430	22.2
60	424	7160	24.4
65	385	7860	26.9
70	348	8600	29.1
75	313	9360	31.3
80	280	10130	34.2
85	249	10930	36.0
90	220	11730	38.2
95	194	12560	40.4
100	169	13430	42.6
105	146	14290	44.7
110	124	15300	47.2
115	105	16320	49.5
120	88	17420	52.0
125	71	18730	55.1
130	56	20230	58.9
135			
140			
1340	50	20910	61.0

4590	7105	25	7350	55.7	7700	15.8	26	353	7.3
4770	7375	26		54.7		15.4	27		
4950	7645	27	7970	54.5	5700	11.9	28	332	10.1
5130	7915	28		53.7		8.2	29		
5310	8185	29	8600	52.6	6600	3.9	30	320	10.4
5490	8455	30		51.8		1.2	31		
5670	8730	31	9220	51.0	7500	358.3	32	322	12.6
5850	9005	32		50.0		355.0	33		
6030	9285	33	9900	48.6	8700	353.9	34	337	13.8
6210	9565	34		46.0		352.2	35		
6390	9850	35	10550	45.5	10300	350.5	36	337	16.2
6570	10135	36		43.9		349.7	37		
6750	10420	37	11250	42.4	12300	348.2	38	325	14.2
6930	10710	38		41.3		346.5	39		
7110	11005	39	12000	40.7	13800	345.8	40	343	15.0
7290	11300	40		39.8		346.2	41		
7470	11595	41	12770	39.2	15600	346.8	42	356	18.0
7650	11890	42	13130	38.2	16700	347.7	43		
7830	12185	43	13570	37.3	17700	348.0	44	359	20.1
8010	12480	44	13990	36.2	19600	348.6	45		
8190	12775	45		35.1		349.6	46	1	18.2
8370	13075	46	14820	34.5	21400	350.2	47		
8550	13375	47		33.8		350.3	48	10	14.5
8730	13675	48	15630	33.7	23300	351.4	49		
8910	13975	49		33.5		352.4	50	35	11.7
9090	14275	50	16520	33.6	24700				

Coded Data for Transmission

SHV	18971	0000	20000	0904	1005	0907	0706	0506	0504
0203	03405	23606	10407	00311	0212	03614	33514	53514	03220
53436	03429	53638	03632	50421	01017	80910			

125	71	18730	30.1
130	56	20230	58.9
135			
140			
145	50	20910	61.0

Punched Card Data

Altitude#	Direction (degrees)	Speed (m.p.s.)	Card columns	Altitude#	Direction (degrees)	Speed (m.p.s.)
Card No. 1			15	Card No. 2		
Type of equipment	8	16	Type of equipment	8		
etc.	320	3	17-21	7	351	7
150 m.	000	00	22-26	8	314	9
300 m.	000	00	27-31	9	320	10
0.5	000	00	32-36	10	341	13
1.0	94	2	37-41	11	336	16
1.5	86	3	42-46	12	332	15
2.0	55	2	47-51	13	355	17
2.5	53	2	52-56	14	2	20
3	350	2	57-61	15	3	18
4	22	2	62-66	16	17	14
5	30	6	67-71	17	51	11
6	358	7	72-76	18	89	9

Maximum Wind Speed Data

Min. alt. wind speed 45 m.p.s. or more (m.)		
Alt. of maximum wind speed (m.)		
Max. wind speed (m.p.s.) and dir. (degrees)		
Dir. (degrees) and speed (m.p.s.) of Max. wind		
Enter check if additional levels appear on reverse side.		

U.S. DEPARTMENT OF COMMERCE
WEATHER BUREAU

WINDS-ALOFT COMPUTATION SHEET
(LAND STATION FORM)
WBAN-20

	Year	Month	Day	Time
Actual time th mer.	1963	JUN	26	1130
Scheduled (G.M.T.)	1963	JUN	26	1730
Ascension No. 709				

Pa

2

Slant range (m.) (yds.)	Pibal ht. above sfc. (m.)	Minute	Raw in ht. above surface (m.)	Elevation angle°		Distance from observation point (m.)	Azimuth angle °	Minute	Wind	
	100- gram			Observed	Smoothed				Direction° 360°= N	Speed (m.p.h.)
	14570	51		34.1			353.4	51		
	14860	52	17370	34.4		25300	354.8	52	68	9.2
	15145	53		34.9			356.0	53		
	15425	54	18220	35.6		25300	357.4	54	99	9.1
	15705	55		36.4			358.8	55		
	15985	56	19020	37.3		24800	359.7	56	117	7.9
	16265	57		38.1			0.5	57		
	16545	58	19770	38.8		24400	1.2	58	99	6.8
	16825	59		39.3			2.3	59		
	17105	60	20560	39.7		24600	3.3	60	92	5.0
	17385	61	20830	40.3		24400	3.4	61		
	17670	62						62		
	17950	63						63		
	18235	64						64		
	18515	65						65		
	18795	66						66		
	19080	67						67		
	19360	68						68		
	19645	69						69		
	19925	70						70		
	20210	71						71		
	20490	72						72		
	20775	73						73		
	21055	74						74		
	21340	75						75		
	21620	76						76		
	21905	77						77		
	22185	78						78		
	22470	79						79		
	22750	80						80		
	23040	81						81		
	23320	82						82		
	23600	83						83		
	23880	84						84		

Slant range (m.) (yds.)	Minimum	Raw in ht. above surface (m.)	Elevation angle Observed	Elevation angle Smoothed	Distance from observation point (m.)	Azimuth angle °	Minimum	Direction 360° = N	Wind Speed (m.p.s.)
	106						106		
	107						107		
	108						108		
	109						109		
	110						110		
	111						111		
	112						112		
	113						113		
	114						114		
	115						115		

- * Stamp
follow
1. Nat
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3. Loc
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* Altitude
* In km

Punched Card Data

Attitude	Reaction (degrees)	Speed (m.p.s.)	Card columns	Attitude	Reaction (degrees)	Speed (m.p.s.)
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NNNN

RC110

ZCSQJ733ZCWAYA403

PP RUCDSQ

DE RUWGAA 153

ZNR

P 272110Z

FM 2EW BARKSDALE AFB LA

TO RUWGALE/AIR DEFENSE COMMAND ENT AFB COLO

RUWGKF/CENTRAL AIR DEF FORCE HQ 20AD RICHARDS GENBAUR AFB MO

RUCDSQ/AIR TECHNICAL INTELLIGENCE CENTER WPAFB

RUEAHQ/HQ USAF WASH DC

RUEAHQ/SECRETARY OF THE AIR FORCE SAFOI WASH DC

INFO RUCSER/SAC

ZEN/2AF BARKSDALE AFB LA

VZEN/4AD BARKSDALE AFB LA

1963 JUN 28 04 05

TO

NO

TIME

Date

By:

21411

11-335 ORDERED WIND
26-27 June

	20480	72					72		
	20778	73					73		
	21055	74					74		
	21340	75					75		
	21620	76					76		
	21905	77					77		
	22185	78					78		
	22470	79					79		
	22750	80					80		
	23040	81					81		
	23320	82					82		
	23600	83					83		
	23880	84					84		
	24160	85					85		
	24440	86					86		
	24730	87					87		
	25010	88					88		
	25300	89					89		
	25580	90					90		
	25860	91					91		
	26140	92					92		
	26420	93					93		
	26700	94					94		
	26980	95					95		
	27260	96					96		
	27540	97					97		
	27820	98					98		
	28100	99					99		
	28380	100					100		
	28660	101					101		
	28940	102					102		
	29220	103					103		
	29500	104					104		
	29780	105					105		

Minute	106	107	108	109	110	111	112	113	114	115
Slant range (m.) (yds.)										

Altitude
in km

Punched Card Data

Altitude#	Direction (degrees)	Speed (m.p.s.)	Card columns	Altitude#	Direction (degrees)	Speed (m.p.s.)
Card No. 3			15	Card No. 4		
Type of equipment			16	Type of equipment		
19	116	8	17-21	31		
20	97	7	22-26	32		
21			27-31	33		
22			32-36	34		
23			37-41	35		
24			42-46	36		
25			47-51	37		
26			52-56	38		
27			57-61	39		
28			62-66	40		
29			67-71	41		
30			72-76	42		

Maximum Wind Speed Data

Min. alt. wind speed 45 m.p.s. or more (m.)		
Alt. of maximum wind speed (m.)		
Dir. (degrees) and speed (m.p.s.) of Max. wind		
Max. alt. wind speed 45 m.p.s. or more (m.)		

SHREVEPORT, LOUISIANA
 Greater Shreveport Municipal Airport
 Lat. 32°23'N Long. 93°49'W
 Local Standard Time, 90th Meridian
 El. of Station, 79M, RAWIN, GMD-1A

U.S. DEPARTMENT OF COMMERCE
 WEATHER BUREAU
WINDS-ALOFT COMPUTATION SHEET
 (LAND STATION FORM)
 WBAN-20

Actual time	Year	Month	Day	Time
th mer.	1963	JUN	26	1730
Scheduled (G.M.T.)	1963	JUN	26	2330
Ascension No. 710				

Type of Balloon 1300 5221

Orientation, 360° = South

Slant range (m.) (yds.)	Pibal ht. above sfc. (m.) 30 gram 100 gram	Minute	Rawin ht. above surface (m.)	Elevation angle°		Distance from observation point (m.)	Azimuth angle °	Minute	Wind		Rawinsonde Time-Altitude Data			
				Observed	Smoothed				Direction° 360°= N.	Speed (m.p.s.)	Con- tact	Pressure (mb.)	Altitude (m, m.s.l.)	Elapsed time (min.)
	216 350	1	260	55.0		100	159.1	1	153	3.6	5.3	1006	79	0.0
	414 670	2	570	51.6		450	152.7	2	104	4.4	5	1011		
	612 980	3	820	53.3		600	116.4	3	81	4.5	10	946	640	2.2
	801 1285	4	1080	54.2		800	112.4	4	91	3.5	15	882	1250	4.5
	990 1585	5	1340	54.0		1000	105.5	5	72	3.1	20	822	1850	6.6
	1170 1880	6	1650	55.0		1100	98.9	6	80	2.7	25	764	2460	9.3
	1350 2170	7	1900	55.4		1300	98.8	7	77	1.7	30	707	3090	11.9
	1530 2455	8	2120	58.3		1300	95.8	8	3	2.3	35	654	3720	14.3
	1710 2740	9	2340	60.7		1300	86.4	9	357	3.6	40	602	4400	16.5
	1890 3020	10	2570	63.4		1300	76.4	10	339	4.2	45	554	5060	19.1
	2070 3300	11	2810	66.1		1250	63.1	11	325	5.2	50	507	5770	21.5
	2250 3580	12	3020	68.6		1200	47.8	12	304	5.9	55	463	6450	23.9
	2430 3855	13	3300	72.2		1100	28.2	13	284	6.3	60	421	7160	26.2
	2610 4130	14	3560	74.3		1000	7.6	14	291	5.1	65	382	7890	29.0
	2790 4405	15	3860	72.3		1200	357.8	15	341	4.3	70	344	8650	32.4
	2970 4675	16	4200	69.9		1500	358.3	16	6	5.8	75	308	9450	35.2
	3150 4945	17	4500	67.2		1900	1.2	17	10	5.9	80	275	10200	37.8
	3330 5215	18	4770	65.4		2200	2.1	18	6	4.9	85	244	11000	40.4
	3510 5485	19	5020	63.1		2500	2.0	19	5	6.6	90	215	11820	43.0
	3690 5755	20	5300	60.4		3000	2.6	20	5	7.6	95	189	12700	45.4
	3870 6025	21	5570	58.2		3400	2.9	21	3	6.7	100	164	13590	48.1
	4050 6295	22	5860	56.4		3800	2.5	22	360	6.5	105	142	14450	50.7
	4230 6565	23	6140	54.9		4200	2.2	23	359	6.5	110	121	15410	53.3
	4410 6835	24	6410	54.0		4600	1.9	24	358	7.4	115	102	16450	56.2
	4590 7105	25	6720	53.0		5100	1.4	25	352	6.7	120	84	17610	59.4
	4770 7375	26	7020	52.4		5400	0.3	26	331	4.8	125	67	19090	63.4
	4950 7645	27	7310	52.1		5600	358.3	27			130	52	20600	67.8
	5130 7915	28		51.0			352.1	28	336	8.0	135	37	22870	73.3
	5310 8185	29	7880	50.2		6500	355.2	29			140	22	26160	80.8
	5490 8455	30		48.6			352.7	30	328	11.8	320	10	31400	93.3
	5670 8730	31	8310	46.7		7800	350.5	31			325	7.4	33538	94.0
	5850 9005	32		44.9			348.2	32	328	15.4				
	6030 9285	33	8820	42.9		9500	346.3	33						
	6210 9565	34		40.4			344.8	34	326	17.0				
	6390 9850	35	9330	39.1		11400	342.6	35						

Punched Card Data						
Altitude	Direction (degrees)	Speed (m.p.s.)	Card columns	Altitude	Direction (degrees)	Speed (m.p.s.)

Punched Card Data

Altitude#	Direction (degrees)	Speed (m.p.s.)	Card columns	Altitude#	Direction (degrees)	Speed (m.p.s.)

4210	23	6140	54.9	4200	2.2	23	359	6.5
4410	24	6410	54.0	4600	1.9	24	358	7.4
4610	25	6720	53.0	5100	1.4	25	352	6.7
4810	26	7020	52.4	5400	0.3	26	321	4.8
5010	27	7310	52.1	5600	358.3	27		
5210	28		51.0		357.1	28	336	8.0
5410	29	7880	50.2	6500	355.2	29		
5610	30		48.6		352.7	30	328	11.8
5810	31	8310	46.7	7800	350.5	31		
6010	32		44.9		348.2	32	328	15.4
6210	33	8820	42.9	9500	346.3	33		
6410	34		40.9		344.8	34	326	17.0
6610	35	9330	39.1	11400	342.6	35		
6810	36		37.2		340.4	36	321	20.2
7010	37	9930	35.7	13700	338.8	37		
7210	38		34.8		338.0	38	326	15.5
7410	39	10520	34.0	15500	337.2	39		
7610	40		33.4		336.1	40	309	14.0
7810	41	11120	32.9	17000	334.5	41		
8010	42		32.1		333.7	42	325	18.0
8210	43	11820	31.6	19100	333.4	43		
8410	44		30.3		333.3	44	335	20.5
8610	45	12500	29.9	21600	333.4	45		
8810	46		29.0		334.1	46	344	22.0
9010	47	13120	28.2	24300	334.7	47		
9210	48	13480	27.8	25800	335.9	48	354	26.0
9410	49	13830	26.8	27200	337.1	49		
9610	50	14130	26.4	28200	338.3	50	6	21.0

Coded Data for Transmission

5114	00921	1507	21009	0808	0806	0805	0804	3604	3507
7304	03111	23010	40111	60111	3604	03613	33410	53416	03633
73239	53228	03340	53551	00127	00107	99997	00717	00992	00728
01030	00831								

110	121	15070	55.3
115	102	16450	56.2
120	84	17610	59.4
125	67	19090	63.4
130	52	20600	67.8
135	37	22870	73.3
140	22	26160	80.8
2010	10	31440	92.3
225	7.4	33538	94.0

Punched Card Data

Altitude	Direction (degrees)	Speed (m.p.s.)	Card columns	Altitude	Direction (degrees)	Speed (m.p.s.)
Card No. 1			15	Card No. 2		
Type of equipment			8	Type of equipment		8
slc.	90	3	17-21	7	338	7
150 m.	113	3	22-26	8	332	10
300 m.	149	4	27-31	9	327	17
0.5	125	4	32-36	10	323	18
1.0	84	4	37-41	11	311	15
1.5	72	3	42-46	12	332	20
2.0	60	2	47-51	13	346	23
2.5	351	4	52-56	14	2	23
3	314	5	57-61	15	7	16
4	344	5	62-66	16	13	9
5	6	6	67-71	17	55	4
6	359	7	72-76	18	77	4

Maximum Wind Speed Data

Min. alt. wind speed 45 m.p.s. or more (m.)		
Alt. of maximum wind speed (m.)		
Max. wind speed (m.p.s.) and dir. (degrees)		
Dir. (degrees) and speed (m.p.s.) of Max. wind		
Enter check if additional levels appear on reverse side.		

Identification SHREVEPORT, LOUISIANA Greater Shreveport Municipal Airport Lat. 32°28'N Long. 93°49'W Local Standard Time, 90th Meridian El of Station, 79M, RAWIN, GMD-1A		U.S. DEPARTMENT OF COMMERCE WEATHER BUREAU WINDS-ALOFT COMPUTATION SHEET (LAND STATION FORM) WBAN-20		Actual time 1730 Scheduled (G.M.T.) 1963 JUN 28 1730	Year 1963	Month JUN	Day 28	Time 1730
Ascension No. 710								

Slant range (m.) (yds.)	Pibal ht. above sfc. (m.)	Minute	Rawin ht. above surface (m.)	Elevation angle°		Distance from observation point (m.)	Azimuth angle °	Minute	Wind	
				Observed	Smoothed				Direction° 360°= N	Speed (m.p.s.)
	14570	51		26.1			339.2	51		
	14860	52	14870	25.9		30400	340.2	52	6	16.0
	15145	53		25.8			341.2	53		
	15425	54	15600	26.0		31700	341.6	54	8	11.0
	15705	55		26.2			341.9	55		
	15985	56	16320	26.5		32500	342.4	56	21	5.0
	16265	57		26.9			342.8	57		
	16545	58	17050	27.3		32800	343.2	58	67	4.0
	16825	59		27.8			343.6	59		
	17105	60	17820	28.3		32800	344.3	60	77	4.0
	17385	61		28.8			344.8	61		
	17670	62	18530	29.2		32800	345.1	62	71	3.0
	17950	63		29.6			345.4	63		
	18235	64	19270	30.2		32800	345.7	64	66	4.0
	18515	65		30.4			346.5	65		
	18795	66	19940	30.8		33100	347.2	66	65	6.0
	19080	67		31.2			348.0	67		
	19360	68	20640	31.6		33200	349.2	68	67	8.0
	19645	69		31.9			350.3	69		
	19925	70	21440	32.3		33600	351.2	70	72	10.0
	20210	71		32.7			352.2	71		
	20490	72	22230	33.3		33500	353.2	72	80	11.0
	20775	73		33.7			354.3	73		
	21055	74	23140	34.2		33700	355.3	74	82	11.0
	21340	75		34.6			356.3	75		
	21620	76	23960	35.2		33600	357.3	76	90	12.0
	21905	77		35.6			358.3	77		
	22185	78	24820	36.2		33600	0.4	78	92	11.0
	22470	79		36.8			0.7	79		
	22750	80	25800	37.3		33600	1.7	80	79	8.0
	23040	81		37.6			2.9	81		
	23320	82	26800	37.9		34100	4.1	82	74	13.0
	23600	83		38.2			5.7	83		
	23880	84	27870	38.5		34600	7.3	84	76	16.0

Wind Speed (m.p.s.)	Direction° 360°= N	Minute	Azimuth angle °	Distance from observation point (m.)	Elevation angle°	Observed	Smoothed	Rawin ht. above surface (m.)	Minute	Slant range (m.) (yds.)
		106							106	
		107							107	
		108							108	
		109							109	
		110							110	
		111							111	
		112							112	
		113							113	
		114							114	
		115							115	

*Stamp follow:
 1. Name of Station
 2. Lat. and Long.
 3. Local Standard Time, meridian
 4. El. of Station
 5. Method of observation, rawin or rawin
 6. Type of equipment used: WBR, GMD, GMD, SCR, theodolite

Altitude in km.

Punched Card Data

Altitude#	Direction (degrees)	Speed (m.p.s.)	Card columns	Altitude#	Direction (degrees)	Speed (m.p.s.)

20775	73	21140	33.1	33700	354.3	73		
21055	74		34.2		355.3	74	82	11.0
21340	75		34.6		356.3	75		
21620	76	23960	35.2	33600	357.3	76	90	12.0
21905	77		35.6		358.3	77		
22185	78	24820	36.2	33600	0.4	78	92	11.0
22470	79		36.8		0.7	79		
22750	80	25800	37.3	33600	1.7	80	79	8.0
23040	81		37.6		2.9	81		
23320	82	26800	37.9	34100	4.1	82	74	13.0
23600	83		38.2		5.7	83		
23880	84	27870	38.5	34600	7.3	84	76	16.0
24160	85		38.6		9.1	85		
24440	86	29020	38.9	35700	10.5	86	86	18.0
24730	87		39.4		12.2	87		
25010	88	30060	39.9	35600	14.0	88	99	16.0
25300	89		40.4		15.4	89		
25580	90	31220	40.7	35900	16.9	90	97	14.0
25860	91		41.2		18.3	91		
26140	92	32320	41.3	36400	19.8	92	86	15.0
26420	93		41.4		21.1	93		
26700	94	33460	41.4	37600	22.5	94	79	16.0
26980	95					95		
27260	96					96		
27540	97					97		
27820	98					98		
28100	99					99		
28380	100					100		
28660	101					101		
28940	102					102		
29220	103					103		
29500	104					104		
29780	105					105		

Minute	106	107	108	109	110	111	112	113	114	115
Slant range (m.) (yds.)										

Altitude in km.

Punched Card Data

Altitude	Direction (degrees)	Speed (m.p.s.)	Card column	Altitude	Direction (degrees)	Speed (m.p.s.)
Card No. 3			15	Card No. 4		
Type of equipment		8	16	Type of equipment		8
19	68	3	17-21	31	97	15
20	65	6	22-26	32	90	15
21	67	9	27-31	33	82	15
22	74	11	32-36	34		
23	80	11	37-41	35		
24	90	12	42-46	36		
25	90	11	47-51	37		
26	77	8	52-56	38		
27	74	13	57-61	39		
28	75	16	62-66	40		
29	83	18	67-71	41		
30	92	16	72-76	42		

Maximum Wind Speed Data

Min. alt. wind speed 45 m.p.s. or more (m.)		
Alt. of maximum wind speed (m.)		
Dir. (degrees) and speed (m.p.s.) of Max. wind		
Max. alt. wind speed 45 m.p.s. or more (m.)		

Identification

SHREVEPORT, LOUISIANA

Water Shreveport Municipal Airport
 32°28'N Long. 93°49'W
 Standard Time, 90th Meridian
 of Station, 79M. RAWIN, GMD-1A

U.S. DEPARTMENT OF COMMERCE
 WEATHER BUREAU

WINDS-ALOFT COMPUTATION SHEET
 (LAND STATION FORM)

WBAN-20

	Year	Month	Day	Time
Actual time —th mer.	1963	JUN	26	2330
Scheduled (G.M.T.)	1963	JUN	27	0530
Ascension No.	711			

Type of balloon 600300

Orientation, 360° = South

Slant range (m.) (yds.)	Pibal ht. above sfc. (m.) 30 gram 100 gram	Minute	Rawin ht. above surface (m.)	Elevation angle°		Distance from observation point (m.)	Azimuth angle °	Minute	Wind		Rawinsonde Time-Altitude Data			
				Observed	Smoothed				Direction° 360° = N.	Speed (m.p.s.)	Contact	Pressure (mb.)	Altitude (m., m.s.l.)	Elapsed time (min.)
	216 350	1	230	59.7		100	133.1	1	135	3.3	5.0	1008	79	0.0
	414 670	2	540	55.1		409	134.5	2	141	5.1	5	1008	—	—
	612 980	3	820	50.8		700	139.3	3	150	4.6	10	942	660	2.2
	801 1285	4	1130	49.1		950	144.3	4	164	4.4	15	878	1300	4.4
	990 1585	5	1420	48.4		1208	150.3	5	172	4.8	20	817	1900	6.8
	1170 1880	6	1640	48.2		1500	154.7	6	164	2.5	25	758	2510	9.2
	1350 2170	7	1870	52.2		1500	152.7	7	27	1.4	30	702	3140	11.4
	1530 2455	8	2130	56.5		1400	149.2	8	22	3.2	35	649	3780	13.7
	1710 2740	9	2410	60.9		1300	139.7	9	26	4.4	40	598	4450	16.0
	1890 3020	10	2670	65.7		1200	127.1	10	12	5.3	45	549	5130	18.3
	2070 3300	11	2960	70.5		1050	110.1	11	359	7.6	50	502	5860	20.9
	2250 3580	12	3230	73.2		950	78.8	12	353	8.6	55	459	6520	23.3
	2430 3855	13	3560	72.0		1100	51.6	13	356	8.1	60	417	7250	25.8
	2610 4130	14	3820	69.3		1450	36.3	14	1	6.4	65	378	7960	28.2
	2790 4405	15	4120	67.5		1700	30.4	15	2	5.2	70	340	8730	30.7
	2970 4675	16	4420	65.8		2000	26.3	16	2	5.13	75	306	9420	33.1
	3150 4945	17	4730	64.2		2300	22.7	17	6	4.3	80	272	10300	35.3
	3330 5215	18	5000	63.2		2500	22.1	18	21	4.2	85	242	11060	37.6
	3510 5485	19	5260	61.7		2870	22.2	19	25	5.8	90	214	11870	40.1
	3690 5755	20	5520	59.6		3200	23.3	20	30	6.7	95	188	12720	42.5
	3870 6025	21	5800	58.4		3600	23.9	21	28	6.7	100	164	13560	45.1
	4050 6295	22	6070	56.8		4000	24.7	22	21	5.0	105	141	14500	47.5
	4230 6565	23	6340	55.8		4200	23.5	23	13	5.0	110	120	15070	49.7
	4410 6835	24	6650	54.5		4700	22.4	24	2	8.0	115	102	16470	52.5
	4590 7105	25	6930	53.7		5100	19.7	25			120	85	17560	55.3
	4770 7375	26		52.8			17.0	26	349	8.4	125	70	18780	58.5
	4950 7645	27	7530	51.4		6000	14.9	27			130	54	20000	62.5
	5130 7915	28		50.4			13.4	28	359	9.4	135	41	21100	
	5310 8185	29	8120	48.7		7100	12.5	29			140	27	24750	
	5490 8455	30		46.8			12.1	30	7	12.0				
	5670 8730	31	8790	45.5		8500	11.2	31						
	5850 9005	32		44.6			9.7	32	346	10.6				
	6030 9285	33	9400	43.9		9700	8.1	33						
	6210 9555	34		43.5			6.4	34	334	10.4				
	6390	35	10120	42.1		10700	4.2	35						

Punched Card Data

Altitude	Direction (degrees)	Speed (m.p.s.)	Card columns	Altitude	Direction (degrees)	Speed (m.p.s.)
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4810	24	6650	50.5	4700	22.4	24	2	2.0
4811	25	6930	53.7	5100	19.7	25		
4812	26		52.8		17.0	26	349	8.4
4813	27	7530	51.4	6000	14.9	27		
4930	28		50.4		13.4	28	359	9.4
7613	29	8120	48.7	7100	12.5	29		
5130	30		46.7		12.1	30	7	12.0
7915	31	8790	45.5	8500	11.2	31		
5310	32		44.6		9.7	32	346	10.6
8185	33	9400	43.9	9700	8.1	33		
5490	34		43.5		6.4	34	334	10.4
8455	35	10120	43.2	10700	4.2	35		
5670	36		42.2		2.9	36	354	15.0
8730	37	10820	40.7	12500	2.5	37		
5850	38		39.1		2.5	38	355	19.3
9005	39	11520	37.7	14800	1.7	39		
6030	40		36.2		0.7	40	354	22.0
9285	41	12200	34.9	17400	0.4	41		
6210	42		33.4		0.4	42	360	20.5
9565	43	12820	32.9	19700	0.4	43		
6390	44	13130	32.2	20700	359.3	44	351	17.4
9850	45	13500	31.6	21800	359.4	45		
6570	46	13920	30.9	23000	357.1	46	354	20.0
10135	47		30.3		359.3	47		
6750	48	14710	29.7	25600	359.0	48	9	18.0
10420	49		29.4		0.0	49		
6930	50	15540	29.3	27500	1.0	50	18	12.0
10710								
7110								
11005								
7290								
11300								
7470								
11595								
7650								
11890								
7830								
12185								
8010								
12490								
8190								
12775								
8370								
13075								
8550								
13375								
8730								
13675								
8910								
13975								
9090								
14275								

Coded Data for Transmission

541	06930	1407	2 1410	1509	4 1709	1707	6 0703	0206	8 0208
0112	0 3615	2 3615	4 3610	6 0109	8 0313	0 0210	4 3616	5 3617	03521
53531	03641	53537	00228	40211	00609	90821			

115	122	16670	52.3
120	85	17560	55.3
125	70	18780	58.5
130	54	20000	62.5
135	41	22100	
140	27	24750	
142.1	48	21150	64.0

Punched Card Data

Altitude	Direction (degrees)	Speed (m.p.s.)	Card columns	Altitude	Direction (degrees)	Speed (m.p.s.)
Card No. 1			15	Card No. 2		
Type of equipment	8	16	Type of equipment	8		
etc.	130	2	17-21	7	356	8
150 m.	133	3	22-26	8	1	10
300 m.	136	4	27-31	9	353	11
0.5	138	4	32-36	10	338	11
1.0	154	5	37-41	11	355	18
1.5	171	5	42-46	12	355	22
2.0	26	2	47-51	13	354	19
2.5	25	4	52-56	14	254	20
3	360	7	57-61	15	13	17
4	1	6	62-66	16	18	10
5	17	5	67-71	17	30	5
6	26	6	72-76	18	58	4

Maximum Wind Speed Data

Min. alt. wind speed 45 m.p.s. or more (m.)		
Alt. of maximum wind speed (m.)		
Max. wind speed (m.p.s.) and dir. (degrees)		
Dir. (degrees) and speed (m.p.s.) of Max. wind		
Enter check if additional levels appear on reverse side.		

Identification
 SHREVEPORT, LOUISIANA
 Greater Shreveport Municipal Airport
 Lat. 32°25'N Long. 93°49'W
 Local Standard Time, 90th Meridian
 Station, 79M, RAWIN, GMD-1A

U.S. DEPARTMENT OF COMMERCE
 WEATHER BUREAU
WINDS-ALOFT COMPUTATION SHEET
 (LAND STATION FORM)
 WBAN-20

	Year	Month	Day	Time
Actual time	1963	JUN	26	2330
Scheduled (G.M.T.)	1963	JUN	27	0530
Ascension No. 711				

Slant range (m.) (yds.)	Pibal ht. above sfc. (m.)	Minute	Rawin ht. above surface (m.)	Elevation angle°		Distance from observation point (m.)	Azimuth angle °	Minute	Wind	
				Observed	Smoothed				Direction° 360°= N	Speed (m.p.s.)
	14570	51		29.2			1.0	51		
	14860	52	16340	29.2		29100	1.2	52	14	6.0
	15145	53		29.2			1.7	53		
	15425	54	17070	29.4		30100	2.0	54	35	5.0
	15705	55		29.7			2.5	55		
	15985	56	17820	30.3		30300	2.6	56	58	4.0
	16265	57		30.7			2.7	57		
	16545	58	18620	31.1		30600	3.2	58	54	6.0
	16825	59		31.4			3.7	59		
	17105	60	19470	31.5		31500	5.1	60	68	10.0
	17385	61		31.8			6.5	61		
	17670	62	20220	32.1		32000	7.5	62	80	11.0
	17950	63		32.3			8.6	63		
	18235	64	21640	32.9		32300	9.8	64	85	11.0
	18515	65						65		
	18795	66						66		
	19080	67						67		
	19360	68						68		
	19645	69						69		
	19925	70						70		
	20210	71						71		
	20490	72						72		
	20775	73						73		
	21055	74						74		
	21340	75						75		
	21620	76						76		
	21905	77						77		
	22185	78						78		
	22470	79						79		
	22750	80						80		
	23040	81						81		
	23320	82						82		
	23600	83						83		

Slant range (m.) (yds.)	Minute	Rawin ht. above surface (m.)	Elevation angle°		Distance from observation point (m.)	Azimuth angle °	Wind	
			Observed	Smoothed			Direction° 360°= N	Speed (m.p.s.)
	106							
	107							
	108							
	109							
	110							
	111							
	112							
	113							
	114							
	115							

Punched Card Data

Station	Section	Speed	Card	Station	Section	Speed

* Stamp following:
 1. Name
 2. Station
 3. Loc.
 4. El. o
 5. Meth.
 6. Type

Altitude in km

20497	72					72	
20778	73					73	
21000	74					74	
21240	75					75	
21420	76					76	
21905	77					77	
22185	78					78	
22470	79					79	
22750	80					80	
23040	81					81	
23320	82					82	
23600	83					83	
23880	84					84	
24160	85					85	
24440	86					86	
24730	87					87	
25010	88					88	
25300	89					89	
25580	90					90	
25860	91					91	
26140	92					92	
26420	93					93	
26700	94					94	
26980	95					95	
27260	96					96	
27540	97					97	
27820	98					98	
28100	99					99	
28380	100					100	
28660	101					101	
28940	102					102	
29220	103					103	
29500	104					104	
29780	105					105	

Minute	106	107	108	109	110	111	112	113	114	115
Slant range (m.) (yds.)										

Altitude
in km

Punched Card Data

Altitude#	Direction (degrees)	Speed (m.p.s.)	Card columns	Altitude#	Direction (degrees)	Speed (m.p.s.)
Card No. 3			15	Card No. 4		
Type of equipment	8		16	Type of equipment	8	
19	61	7	17-21	31		
20	76	11	22-26	32		
21	84	11	27-31	33		
22			32-36	34		
23			37-41	35		
24			42-46	36		
25			47-51	37		
26			52-56	38		
27			57-61	39		
28			62-66	40		
29			67-71	41		
30			72-76	42		

Maximum Wind Speed Data

Min. alt. wind speed 45 m.p.s. or more (m.)		
Alt. of maximum wind speed (m.)		
Dir. (degrees) and speed (m.p.s.) of Max. wind		
Max. alt. wind speed 45 m.p.s. or more (m.)		

*Identification

SHREVEPORT, LOUISIANA

Greater Shreveport Municipal Airport

Lat. 32°28' N Long. 93°49' W

Local Standard Time, 90th Meridian

El. of Station, 79M, RAWIN, GMD-1A

U.S. DEPARTMENT OF COMMERCE
WEATHER BUREAU

WINDS-ALOFT COMPUTATION SHEET

(LAND STATION FORM)

WBAN-20

	Year	Month	Day	Time
Actual time	1963	JUN	27	0530
Scheduled (G.M.T.)	1963	JUN	27	1130
Ascension No.	712			

Type of balloon 1200-GRM

Orientation, 360° = South

Slant range (m.) (yds.)	Pibal ht. above sfc. (m.)	Minute	Rawin ht. above surface (m.)	Elevation angle°		Distance from observation point (m.)	Azimuth angle °	Minute	Wind	
				Observed	Smoothed				Direction° 360° = N.	Speed (m.p.s.)
	216 350	1	250	29.4		400	139.1	1	146	5.8
	414 670	2	530	35.9		700	145.8	2	163	3.5
	612 980	3	800	45.1		800	150.7	3	205	1.2
	801 1285	4	1090	53.2		780	154.0	4	306	0.8
	990 1585	5	1400	62.0		730	153.7	5	357	1.8
	1170 1880	6	1700	71.5		580	145.7	6	352	3.3
	1350 2170	7	1970	79.1		370	135.3	7	345	3.3
	1530 2455	8	2280	84.0		240	116.9	8	342	3.2
	1710 2740	9	2560	86.8		150	56.3	9	343	3.9
	1890 3020	10	2850	82.1		380	13.2	10	348	6.4
	2070 3300	11	3120	74.2		840	758.4	11	351	7.7
	2250 3580	12	3410	69.6		1275	356.1	12	352	5.9
	2430 3855	13	3690	62.2		1550	355.4	13	347	5.3
	2610 4130	14	3990	64.2		1900	353.0	14	347	6.2
	2790 4405	15	4240	61.8		2275	352.6	15	355	7.2
	2970 4675	16	4550	58.7		2750	353.5	16	358	8.2
	3150 4945	17	4830	56.4		3250	354.3	17	1	8.0
	3330 5215	18	5080	54.5		3700	355.4	18	352	5.1
	3510 5485	19	5350	53.9		3850	353.9	19	336	5.3
	3690 5755	20	5650	52.9		4300	352.7	20	346	7.2
	3870 6025	21	5920	51.7		4700	352.6	21	1	6.7
	4050 6295	22	6180	50.5		5100	354.1	22	10	7.8
	4230 6565	23	6450	49.2		5600	355.4	23	12	7.8
	4410 6835	24	6730	48.1		6000	356.7	24	21	6.4
	4590 7105	25	7010	48.0		6300	358.5	25		
	4770 7375	26	X	47.6			0.0	26	20	8.0
	4950 7645	27	7620	47.2		7200	1.5	27		
	5130 7915	28		46.7			2.5	28	23	5.0
	5310 8185	29	8140	46.1		7800	3.5	29		
	5490 8455	30		44.9			4.3	30	12	11.0
	5670 8730	31	8710	43.8		9200	4.6	31		
	5850 9005	32		42.2			5.6	32	16	13.0
	6030 9285	33	9270	40.8		10800	6.2	33		
	6210 9565	34		39.2			6.2	34	9	15.0
	6390 9850	35	9860	37.8		12700	6.6	35		

Rawinsonde Time-Altitude Data

Contact	Pressure (mb.)	Altitude (m., m.s.l.)	Elapsed time (min.)
4.8	1007	79	0.0
5	1005	100	0.3
10	938	700	2.4
15	876	1300	4.1
20	816	1900	6.5
25	758	2500	8.7
30	702	3160	10.9
35	650	3780	13.2
40	597	4470	15.5
45	550	5110	17.9
50	503	5800	20.5
55	459	6510	23.0
60	418	7220	25.5
65	379	7940	28.1
70	342	8700	30.8
75	307	9450	33.6
80	274	10250	36.3
85	244	11000	39.0
90	216	11830	41.6
95	190	12640	44.5
100	164	13570	47.4
105	142		
110	122		
115	102		
120	85		
125	67		
130	52		
135	36		
140	21		
1050	142	14446	50.0

Punched Card Data

Altitude#	Direction (degrees)	Speed (m.p.s.)	Card columns	Altitude#	Direction (degrees)	Speed (m.p.s.)

DATA PROCESSING DIVISION
CLIMATIC CENTER, USAF
Air Weather Service (MATC)
Asheville, North Carolina

REPLY TO
ATTN OF: CCDFD


SUBJECT: Surface Data and Wind Data for Texarkana Area

25 Sep 1963

TO: ATIC/TDE (FD Div/Sgt Moody)

1. Reference: Your telephone request on 24 Sep 1963.
2. We are sending a copy of the surface observations (WBAN 10 Forms) recorded on 26-27 June 1963 at Texarkana, Arkansas. Also inclosed are copies of the WBAN 20 computation sheets for observations on 26-27 June 63 at Shreveport, La.

FOR THE DIRECTOR


JAMES R. DECOSTER
Chief, Data Processing Division

- 2 Atch
1. Cy sfc data
 2. Cy wnd data

tion
0 m.
alt.
msl.

5405	20	5650	52.7	4300	552.7	20	20	7.0
3690	21	5920	51.7	4700	352.6	21	1	6.7
5755	22	6180	50.5	5100	354.1	22	10	7.8
3870	23	6450	49.7	5600	355.4	23	12	7.8
6025	24	6730	48.1	6000	356.7	24	21	6.4
4050	25	7010	48.0	6300	358.5	25		
6295	26	X	47.6		0.0	26	20	8.0
4230	27	7620	47.2	7200	1.5	27		
6565	28		46.7		2.5	28	23	5.0
4410	29	8140	46.1	7800	3.5	29		
6835	30		46.9		4.3	30	12	11.0
4590	31	8710	43.8	9200	4.6	31		
7105	32		42.2		5.4	32	16	13.0
4770	33	9270	40.8	10800	6.2	33		
7375	34		39.2		6.2	34	9	15.0
4950	35	9860	37.8	12700	6.6	35		
7645	36		36.4		6.9	36	8	17.0
5130	37	10470	34.9	14900	6.8	37		
7915	38		33.7		6.7	38	5	19.0
5310	39	11020	32.6	17200	6.2	39		
8185	40		31.6		6.2	40	3	20.0
5490	41	11670	30.6	19600	5.9	41		
8455	42		29.9		5.9	42	3	17.0
5670	43	12270	29.3	21700	5.4	43		
8730	44		28.8		5.6	44	15	18.0
5850	45	12900	28.2	23900	6.2	45		
9005	46		27.6		6.5	46	8	19.0
6030	47	13500	27.1	26300	6.6	47		
9285	48	13820	26.6	27400	6.4	48	4	18.0
6210	49	14130	26.2	28500	6.0	49		
9565	50	14370	25.8	29300	5.9	50	358	16.0
6390								
9850								
6570								
10135								
6750								
10420								
6930								
10710								
7110								
11005								
7290								
11300								
7470								
11595								
7650								
11890								
7830								
12185								
8010								
12480								
8190								
12775								
8370								
13075								
8550								
13375								
8730								
13675								
8910								
13975								
9090								
14275								

100	164	13570	47.4
105	142		
110	122		
115	102		
120	85		
125	67		
130	52		
135	36		
140	21		
X 1050	142	14446	50.0

Punched Card Data

Altitude	Direction (degrees)	Speed (m.p.s.)	Card columns	Altitude	Direction (degrees)	Speed (m.p.s.)
Card No. 1			15	Card No. 2		
Type of equipment	8		16	Type of equipment	8	
Alt.	120	4	17-21	7	20	7
150 m.	125	4	22-26	8	21	6
300 m.	143	6	27-31	9	15	13
0.5	157	4	32-36	10	9	17
1.0	240	1	37-41	11	5	19
1.5	357	2	42-46	12	2	17
2.0	345	3	47-51	13	10	19
2.5	342	3	52-56	14	2	18
3	349	7	57-61	15		
4	346	6	62-66	16		
5	359	7	67-71	17		
6	2	7	72-76	18		

Maximum Wind Speed Data

Mjn. alt. wind speed 45 m.p.s. or more (m.)		
Alt. of maximum wind speed (m.)		
Max. wind speed (m.p.s.) and dir. (degrees)		
Dir. (degrees) and speed (m.p.s.) of Max. wind		
Enter check if additional levels appear on reverse side.		

Coded Data for Transmission

SHV	12931	1511	21706	2402	43302	3505	63506	3406	83407
3511	03514	23510	43514	63615	83413	00115	830213	50313	00126
50136	00135	50136	23632	XAITD					

Veritas D. C. CHURCH

*Identification
 SHREVEPORT, LOUISIANA
 Greater Shreveport Municipal Airport
 Lat. 32°25'N Long. 93°49'W
 Local Standard Time, 90th Meridian
 El of Station, 79M, RAWIN, GMD-1A

U.S. DEPARTMENT OF COMMERCE
 WEATHER BUREAU

WINDS-ALOFT COMPUTATION SHEET
 (LAND STATION FORM)

WBAN-20

Actual time thmer.	Year	Month	Day	Time
	1961	JUN	27	1130
Scheduled (G.M.T.)			27	1730
Ascension No. 713				

Type of balloon LDD-BRM

Orientation, 360° = South

Slant range (m.) (yds.)	Pibal ht. above sfc. (m.) 30 from 100 ft.	Minute	Rowin ht. above surface (m.)	Elevation angle°		Distance from observation point (m.)	Azimuth angle °	Minute	Wind		Rawinsonde Time-Altitude Data			
				Observed	Smoothed				Direction° 360° = N.	Speed (m.p.s.)	Con- tact	Pressure (mb.)	Altitude (m., m.s.l.)	Elapsed time (min.)
	216 350	1	460	65.8		200	283.5	1	246	2.5	5.0	1008	79	0.0
	414 670	2	920	73.6		300	266.3	2	227	1.2	5	1008	—	—
	612 950	3	1400	76.6		300	261.8	3	173	0.6	10	941	670	1.5
	801 1285	4	1800	79.9		300	255.6	4	246	0.6	15	877	1390	3.0
	990 1585	5	2800	84.0		300	249.3	5	79	1.8	20	816	1900	4.2
	1170 1880	6	3800	88.2		100	279.9	6	73	2.6	25	757	2510	4.8
	1350 2170	7	4510	90.0		0	321.9	7	42	1.8	30	700	3170	5.5
	1530 2455	8	5200	84.4		500	39.9	8	22	8.0	35	696	3830	6.0
	1710 2740	9	5780	80.5		1000	22.0	9	11	8.0	40	594	4500	6.7
	1890 3020	10	6100	76.1		1500	25.5	10	19	10.0	45	544	5200	7.9
	2070 3300	11	6450	72.8		2000	21.3	11	6	8.0	50	498	5900	9.3
	2250 3580	12	6780	69.5		2500	17.6	12	2	9.0	55	454	6600	11.4
	2430 3855	13	7030	67.0		2900	14.6	13			60	411	7360	14.3
	2610 4130	14		66.7			11.1	14	328	8.0	65	372	8070	16.4
	2790 4405	15	7650	66.7		3300	7.7	15			70	334	8860	18.8
	2970 4675	16		66.3			4.6	16	351	5.0	75	300	9610	21.3
	3150 4945	17	8210	65.0		3800	4.9	17			80	266	10450	24.1
	3330 5215	18		62.8			4.9	18	4	11.0	85	236	11280	26.5
	3510 5485	19	8840	60.1		5100	4.4	19			90	207	12100	28.9
	3690 5755	20		57.8			4.8	20	7	12.0	95	180	12980	31.4
	3870 6025	21	9480	55.3		6500	4.5	21			100	158	13820	33.8
	4050 6295	22		52.5			3.8	22	357	17.0	105			
	4230 6565	23	10110	49.9		6500	2.8	23			110			
	4410 6835	24		48.4			1.9	24	357	13.0	115			
	4590 7105	25	10730	46.7		10100	2.4	25			120			
	4770 7375	26		45.1			2.5	26	2	15.0	125			
	4950 7645	27	11410	43.9		11900	2.2	27			130			
	5130 7915	28		42.8			2.6	28	3	14.0	135			
	5310 8185	29	12060	41.6		13600	3.7	29			140			
	5490 8455	30		40.6			3.1	30	357	15.0				
	5670 8725	31	12780	39.5		15400	2.9	31			033	142	14700	36.0
	5850 9005	32		38.7			1.9	32	340	18.0				
	6030 9285	33	13430	37.6		17400	0.8	33						
	6210 9555	34	13750	36.4		18500	0.5	34	10	18.0				
	6390	35												

Punched Card Data

Altitude#	Direction (degrees)	Speed (m.p.s.)	Card columns	Altitude#	Direction (degrees)	Speed (m.p.s.)

110			
115			
120			
125			
130			
135			
140			
833	142	17750	36.0

Altitude#	Direction (degrees)	Speed (m.p.s.)	Card columns	Altitude#	Direction (degrees)	Speed (m.p.s.)
Card No. 1			15	Card No. 2		
Type of equipment		8	16	Type of equipment		8
slc.	280	3	17-21	7	349	9
150 m.	244	3	22-26	8	350	5
300 m.	251	3	27-31	9	7	12
0.5	263	2	32-36	10	355	16
1.0	224	1	37-41	11	360	15
1.5	179	1	42-46	12	360	14
2.0	281	2	47-51	13	343	17
2.5	37	2	52-56	14	9	19
3	77	2	57-61	15		
4	74	3	62-66	16		
5	40	6	67-71	17		
6	15	9	72-76	18		

[illegible]

Min. alt. wind speed 45 m.p.s. or more (m.)		
Alt. of maximum wind speed (m.)		
Max. wind speed (m.p.s.) and dir. (degrees)		
Dir. (degrees) and speed (m.p.s.) of Max. wind		
Enter check if additional levels appear on reverse side.		

Identification
SHREVEPORT, LOUISIANA
 Greater Shreveport Municipal Airport
 Lat. 32°28'N Long. 93°49'W
 Local Standard Time, 90th Meridian
 ID of Station, 79M, RAWIN, GMD-1A

U.S. DEPARTMENT OF COMMERCE
 WEATHER BUREAU

WINDS-ALOFT COMPUTATION SHEET
 (LAND STATION FORM)

WBAN-20

Actual time —th mer.	Year	Month	Day	Time
1963	JUN	27	1230	
Scheduled (G.M.T.)	Year	Month	Day	Time
1963	JUN	27	2330	
Ascension No. 710				

Type of balloon 1200 927

Orientation, 360° = South

Slant range (m.) (yds.)	Pibal ht. above sfc. (m.) 30 90m 100 90m	Minute	Rawin ht. above surface (m.)	Elevation angle°		Distance from observation point (m.)	Azimuth angle °	Minute	Wind		Rawinsonde Time-Altitude Data			
				Observed	Smoothed				Direction° 360° = N. sfc. 210	Speed (m.p.s.) 4.1	Contact	Pressure (mb.)	Altitude (m, m.s.l.)	Elapsed time (min.)
	216	1	230	47.8		100	214.0	1	214	3.2	5.5	1004	79	0.0
	350	2	520	50.3		400	213.7	2	204	3.3	5	1011	—	—
	414	3	760	54.4		500	203.0	3	161	3.2	10	944	610	2.3
	670	4	1052	57.6		700	188.8	4	130	3.1	15	880	1260	4.7
	612	5	1300	60.7		700	173.2	5	93	2.5	20	817	1880	7.0
	980	6	1590	64.5		750	165.0	6	57	1.3	25	758	2500	9.4
	801	7	1860	70.1		650	161.9	7	10	3.0	30	700	3170	11.9
	1285	8	2100	76.9		450	146.3	8	354	4.8	35	646	3860	14.3
	990	9	2370	86.3		150	105.3	9	345	4.2	40	594	4510	16.8
	1585	10	2660	87.1		150	89.0	10	346	7.1	45	544	5210	17.5
	1170	11	2900	74.6		800	356.6	11	346	9.3	50	498	5910	22.1
	1880	12	3140	69.2		1000	350.1	12	336	6.7	55	453	6600	24.6
	1350	13	3420	64.6		1600	346.5	13	338	6.7	60	411	7340	27.5
	2170	14	3700	61.4		2000	345.0	14	342	6.6	65	372	8130	30.1
	1530	15	3940	52.8		2400	345.0	15	351	7.4	70	334	8990	32.6
	2455	16	4210	55.8		2900	342.1	16	357	8.5	75	300	9750	35.3
	1710	17	4500	52.9		3400	348.8	17	4	7.7	80	266	10460	38.1
	2740	18	4760	50.9		3800	351.1	18	20	7.5	85	236	11260	40.9
	1890	19	5000	49.7		4200	355.0	19	12	7.9	90	207	12120	43.5
	3020	20	5300	48.6		4700	355.1	20	358	6.5	95	181	13030	46.0
	2070	21	5580	47.7		5000	355.5	21	357	5.9	100	158	13870	48.8
	3300	22	5840	46.9		5400	355.2	22	354	5.8	105	136	14770	51.3
	2250	23	6100	46.3		5700	355.1	23	358	7.5	110	116	15180	54.2
	3580	24	6400	45.4		6300	355.9	24	7	8.4	115	97	16730	57.0
	2430	25	6670	44.6		6700	356.9	25	13	7.0	120	80	18000	60.2
	3855	26	6930	43.8		7100	357.9	26	6	9.2	125	64	19340	64.0
	2610	27	7260	42.7		7800	358.3	27			130	50	20920	68.4
	4130	28		42.2			359.3	28	19	6.5	135	34	23450	73.8
	2790	29	7760	42.0		8500	21	29			140	20	26880	81.7
	4405	30		41.7			0.7	30	4	7.4				
	2970	31	8400	41.6		9400	0.7	31			50.1	17.0	27970	84.0
	4675	32		41.5			0.2	32	350	6.8				
	3150	33	9000	41.2		10200	359.8	33						
	4945	34		40.5			358.8	34	343	10.2				
	3330	35	9600	39.9		11400	358.1	35						
	5215													
	3510													
	5485													
	3690													
	5755													
	3870													
	6025													
	4050													
	6295													
	4230													
	6565													
	4410													
	6835													
	4590													
	7105													
	4770													
	7375													
	4950													
	7645													
	5130													
	7915													
	5310													
	8185													
	5490													
	8455													
	5670													
	8730													
	5850													
	9005													
	6030													
	9205													
	6210													
	9565													
	6390													
	9850													

Punched Card Data

Altitude	Direction (degrees)	Speed (m.p.s.)	Card columns	Altitude	Direction (degrees)	Speed (m.p.s.)

4410	24	6400	45.0	6500	355.9	24	7	6.7
4530	25	6670	44.6	6700	356.9	25	13	7.0
4770	26	6930	43.8	7100	357.9	26	6	9.2
4950	27	7260	42.7	7800	358.3	27		
5130	28		42.2		359.3	28	19	6.5
5310	29	7760	42.0	8500	21	29		
5490	30		41.7		0.7	30	4	7.4
5670	31	8400	41.6	9400	0.7	31		
5850	32		41.5		0.2	32	350	6.8
6030	33	9000	41.2	10200	359.8	33		
6210	34		40.5		358.8	34	343	10.2
6390	35	9600	39.9	11400	358.1	35		
6570	36		39.1		356.9	36	341	12.4
6750	37	10170	38.4	12800	356.0	37		
6930	38		37.7		355.4	38	342	12.7
7110	39	10800	37.0	14300	354.5	39		
7290	40		36.6		353.7	40	345	10.3
7470	41	11380	36.1	15500	353.7	41		
7650	42		35.7		353.2	42	338	10.5
7830	43	12020	35.5	16700	352.6	43		
8010	44		35.5		352.2	44	334	10.0
8190	45	12640	35.2	17800	351.2	45		
8370	46		34.5		350.8	46	347	15.0
8550	47	13210	33.8	19000	350.9	47		
8730	48	13540	32.9	20700	351.3	48	3	21.0
8910	49	13900	32.0	22100	352.1	49		
9090	50	14200	31.4	23100	352.7	50	7	19.0

Coded Data for Transmission

SHV	00951	2106	21906	1406	41005	0603	60205	3509	3509
3515	03415	23413	43516	60215	83612	03614	630118	50213	03517
53424	03420	53449	00127	00310	99997	00913	00915	00924	10923

120	50	18000	60.2
125	64	19340	64.0
130	50	20720	68.4
135	34	23450	73.8
140	20	26880	81.7
50.1	17.0	27970	84.0

Punched Card Data

Altitude	Direction (degrees)	Speed (m.p.s.)	Card columns	Altitude	Direction (degrees)	Speed (m.p.s.)
Card No. 1				Card No. 2		
Type of equipment				Type of equipment		
8				8		
210	4			17-21	7	9
213	4			22-26	8	9
211	3			27-31	9	347
207	3			32-36	10	341
142	3			37-41	11	345
80	2			42-46	12	337
7	3			47-51	13	347
345	5			52-56	14	5
345	9			57-61	15	5
348	7			62-66	16	16
14	8			67-71	17	47
354	16			72-76	18	44

Maximum Wind Speed Data

Min. alt. wind speed 45 m.p.s. or more (m.)		
Alt. of maximum wind speed (m.)		
Max. wind speed (m.p.s.) and dir. (degrees)		
Dir. (degrees) and speed (m.p.s.) of Max. wind		
Enter check if additional levels appear on reverse side.		

Verifier P. E. F. 501

SHREVEPORT, LOUISIANA
 Greater Shreveport Municipal Airport
 Lat. 32°28'N Long. 93°49'W
 Local Standard Time, 90th Meridian
 El of Station, 79M, RAWIN, GMD-1A

U.S. DEPARTMENT OF COMMERCE
 WEATHER BUREAU

WINDS-ALOFT COMPUTATION SHEET
 (LAND STATION FORM)
 WBAN-20

	Year	Month	Day	Time
Actual time	1963	JUN	27	1730
Scheduled (G.M.T.)	1963	JUN	28	2330
Ascension No.	214			

Slant range (m.) (yds.)	Pibal ht. above sfc. (m.)	Minute	Rawin ht. above surface (m.)	Elevation angle°		Distance from observation point (m.)	Azimuth angle °	Minute	Wind	
	100-gram			Observed	Smoothed				Direction° 360°= N	Speed (m.p.s.)
	14570	51		30.9			353.6	51		
	14860	52	14900	30.5		25100	354.3	52	5	16.0
	15145	53		30.1			354.3	53		
	15425	54	15550	29.4		26800	354.8	54	6	12.0
	15705	55		30.0			355.3	55		
	15985	56	16240	30.1		27800	355.7	56	31	10.0
	16265	57		30.1			356.4	57		
	16545	58	17070	30.4		28800	357.2	58	51	7.0
	16825	59		30.8			358.0	59		
	17105	60	17860	31.4		29000	358.5	60	46	4.0
	17385	61		31.6			358.5	61		
	17670	62	18620	31.9		29600	358.9	62	27	6.0
	17950	63		31.9			359.4	63		
	18235	64	19410	32.0		30800	0.3	64	41	9.0
	18515	65		32.2			1.1	65		
	18795	66	20250	32.6		31300	2.1	66	76	6.0
	19080	67		33.2			2.7	67		
	19360	68	21070	33.7		31200	3.7	68	91	6.0
	19645	69		34.2			5.0	69		
	19925	70	21870	34.7		31200	5.8	70	80	9.0
	20210	71		34.7			6.7	71		
	20490	72	22700	35.3		31800	7.9	72	78	11.0
	20775	73		35.5			8.4	73		
	21055	74	23460	35.7		32300	10.1	74	80	11.0
	21340	75		35.9			11.1	75		
	21620	76	24310	36.4		32700	12.2	76	90	7.0
	21905	77		37.0			12.8	77		
	22185	78	25210	37.4		32700	13.7	78	88	10.0
	22470	79		37.6			14.9	79		
	22750	80	26120	37.8		33500	16.2	80	83	14.0
	23040	81		37.9			17.9	81		
	23320	82	27010	38.2		34100	19.5	82	89	13.0
	23600	83		38.4			20.7	83		
	23880	84	27000	38.1		34100	21.1	84	81	11.0

Wind Direction° 360°= N	Speed (m.p.s.)	Minute	Azimuth angle °	Distance from observation point (m.)	Elevation angle°	Rawin ht. above surface (m.)	Minute	Slant range (m.) (yds.)
		106			Observed		106	
		107			Smoothed		107	
		108					108	
		109					109	
		110					110	
		111					111	
		112					112	
		113					113	
		114					114	
		115					115	

Punched Card Data

Index	Section	Index	Section	Index	Section
1	1	2	2	3	3

Page

2

* Stamp follow:
 1. Name
 2. Lat
 3. Long
 4. El.
 5. Mer.
 6. Type

* Altitude
 in km

Greater Shreveport Municipal Airport
Lat. 32°28'N Long. 93°49'W
Local Standard Time, 90th Meridian
Elev. of Station, 75M, RAWIN, GMD-1A

WINDS-ALOFT COMPUTATION SHEET (LAND STATION FORM)

	Year	Month	Day	Time
Actual time —th mer.	1963	JUN	27	2330
Scheduled (G.M.T.)	1963	JUN	28	0530
Ascension No. 715				

Orientation. 360° = South

Rawinsonde Time-Altitude Data			
Contact	Pressure (mb.)	Altitude (m., m.s.l.)	Elapsed time (min.)
48	1005	79	0.0
5	1002	100	0.2
10	936	700	2.3
15	873	1320	4.3
20	811	1940	6.4
25	753	2560	8.4
30	697	3200	10.6
35	644	3850	12.9
40	592	4540	15.1
45	544	5200	17.2
50	498	5920	19.2
55	454	6580	21.4
60	412	7330	23.8
65	372	8080	26.4
70	336	8850	28.9
75	301	9630	31.1
80	269	10400	33.3
85	240	11170	35.5
90	211	12000	38.1
95	184	12900	40.6
100	160	13780	—
105	138	14280	—
110	118	15020	—
115	99	16650	—
120	82	17820	—
125	66	19200	—
130	52	20700	—
135	38	22200	—
140	24	25700	—
146	175	13210	41.2

Punched Card Data

Altitude	Direction (degrees)	Speed (m.p.s.)	Card columns	Altitude	Direction (degrees)	Speed (m.p.s.)
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4230	23	6910	52.3	5500	10.2	24	358	9.4
4410	24		50.7		9.6	25		
4610	25	7610	49.7	6400	8.3	26	358	9.0
4770	26		48.7		7.7	27		
4950	27	8220	47.5	7500	7.5	28	358	8.3
5130	28		46.5		6.6	29		
5310	29	8870	45.9	8500	7.1	30	13	8.4
5490	30		45.6		6.9	31		
5670	31	9520	45.1	9500	5.4	32	338	9.5
5850	32		44.7		4.0	33		
6030	33	10250	44.2	10500	2.4	34	337	9.5
6210	34		43.9		1.3	35		
6390	35	10980	43.4	11500	0.2	36	343	9.2
6570	36		42.8		359.7	37		
6750	37	11570	42.2	12600	358.6	38	352	14.6
6930	38		41.4		358.8	39		
7110	39	12300	40.6	14300	359.0	40	357	15.0
7290	40	12720	39.9	15120	358.7	41		
7470	41	13110	39.0	16100		42		
7650	42					43		
7830	43					44		
8010	44					45		
8190	45					46		
8370	46					47		
8550	47					48		
8730	48					49		
8910	49					50		
9090	50							
9270								

115	99	16550	—
120	82	17220	—
125	66	19200	—
130	52	20700	—
135	38	22200	—
140	24	25700	—
145	175	13210	41.2

Punched Card Data

Altitude	Direction (degrees)	Speed (m.p.s.)	Card columns	Altitude	Direction (degrees)	Speed (m.p.s.)
Card No. 1				Card No. 2		
Type of equipment	8	16	Type of equipment	8		
slc.	120	2	17-21	7	352	8
150 m.	133	2	22-26	8	359	9
300 m.	142	2	27-31	9	7	8
0.5	134	2	32-36	10	339	10
1.0	118	1	37-41	11	340	9
1.5	250	1	42-46	12	352	14
2.0	356	3	47-51	13		
2.5	37	4	52-56	14		
3	20	6	57-61	15		
4	21	6	62-66	16		
5	14	6	67-71	17		
6	343	6	72-76	18		

Coded Data for Transmission

SHV	06930	1403	2	1204	1202	2102	2102	3304	0408	0409
0211	00213	20314	4	0211	0211	3409	3412	33516	53618	00116
53419	03528	13629								

Maximum Wind Speed Data

Min. alt. wind speed 45 m.p.s. or more (m.)		
Alt. of maximum wind speed (m.)		
Max. wind speed (m.p.s.) and dir. (degrees)		
Dir. (degrees) and speed (m.p.s.) of Max. wind		
Enter check if additional levels appear on reverse side.		

Vertical P. 1451 NE4

BT

UNCLAS FROM DCOI 27F42. DAYLIGHT.

ACTION: ADC, 20ADIV, ATIC, HQ USAF, SAF. INFO: SAC, 2AF, 4AIRDIV.

SUBJ: UNIDENTIFIED FLYING OBJECTS. MESSAGE TRANSMITTED IAW

INSTRUCTIONS IN AFR 200-2 UFO. A. (1) ROUND. (2) PIN-HEAD.

(3) WHITE TO ORANGE. (4) TWO. (5) TRAIL. (6) NONE. (7)

NONE. (8) NONE. (9) NONE. B. (1) NOTICED WHILE WATCHING

STARS AND LISTENING TO BALL GAME. (2) VERY HIGH TO NORTHWEST.

(3) 45 DEG NORTH OF TEXARKANA. (4) CHANGED COURSE. (5) FADED

INSTANTLY TO NORTH. (6) 1/2 HOUR. C. (1) GROUND VISUAL.

(2) NONE. (3) N/A. D. (1) 27/0245Z (JUNE). (2) NIGHT.

*wind dir
wrong(?)*

PAGE TWO RUWGAA 153

E. (1) SIGHTED FROM BACK YARD AT 420 DELK ROAD, TEXARKANA,
TEXAS. ~~REDACTED~~, ~~REDACTED~~, TEXARKANA, TEXAS.

RELIABLE. G. (1) NOT AVAILABLE. (2) WINDS AT 6,000 FEET

WERE 4 KNOTS AT 080DEG, 10,000 - 11 KNOTS AT 310DEG, 16,000 - 11

KNOTS AT 010DEG, 20,000 - 13 KNOTS AT 360DEG, 30,000 - 33 KNOTS

AT 330DEG, 50,000 - 27 KNOTS AT 010DEG, 60,000 - 7 KNOTS AT 070DEG.

(3) CLEAR. (4) 12 MILES. (5) FEW CUMULOUS WEST OF TEX-

ARKANA. (6) NO RADAR ECHOS WITHIN 150 MILES OF TEXARKANA.

(7) 82DEG WINDS CALM. (H. N/A. I. N/A. J. N/A. K. CHIEF

ESTIMATES BRANCH, WING INTELLIGENCE DIVISION. L. N/A

BT

27/2230Z JUN RUWGAA

1 observer

WEATHER OBSERVATIONS
for use at designated FAA stations)

U. S. DEPARTMENT OF COMMERCE
WEATHER BUREAU

1113 DATE *6-26-63*

ALTIM. ETER SET- TING (10) (12)	REMARKS AND SUPPLEMENTAL CODED DATA (13)	STATION PRESSURE (in.) (17)	DRY BULB (°F) (18)	WET BULB (°F) (19)	TOTAL SKY COVER (21)	TOTAL OPAQUE SKY COVER (24)	OBSERV- ER'S INITIALS (15)
009		29.700			0	0	H.S.
007		29.680			0	0	H.S.
007		29.680			0	0	H.S.
008		29.690			0	0	H.S.
008		29.690			1	1	HS
009	FEW AC / 49071	29.700			3	2	W.O.
							W.O.
010		29.710			1	0	W.O.
011	FEW CI	29.715			0	0	W.O.
010	FEW CI	29.710			0	0	W.O.
009		29.700			2	2	W.O.
008		29.690			5	5	W.O.
007	BLDG CU SE CB TOP DSNT N	29.680			5	5	W.O.
004	CB TOP DSNT NNW	29.650			5	5	W.O.
002	BLDG ALQDS	29.630			5	5	CC
000	CB ALQDS	29.610			6	6	CC
000	CDVCD CB ALQDS	29.610			5	5	CC
997	TCU NE CB ALQDS	29.585			5	5	cm
996	CB S CU W 812 92	29.575			0	0	W.O.
996	CB S -NE	29.575			0	0	cm
997	CU W	29.585			0	0	cm
998		29.590			0	0	W.O.
000		29.610			0	0	cm
001		29.620			0	0	W.O.
000		29.610			0	0	W.O.

SUMMARY OF DAY (MIDNIGHT TO MIDNIGHT)				REMARKS, NOTES AND MISCELLANEOUS PHENOMENA			
MAX. TEMP. (°F) (69)	MIN. TEMP. (°F) (70)	24-HR. PRECIP. WATER DEPTH (in.) (71)	24-HR. SNOW FALL DEPTH (in.) (72)	SNOW DEPTH (in.) (73)			

Commerce-Weather Bureau, Washington, D. C.

STATION TEXARKANA, ARK. DATE 6-27-

[illegible]

WEATHER OBSERVATIONS

(for use at designated FAA stations)

U. S. DEPARTMENT OF COMMERCE
WEATHER BUREAU

LA ARK DATE 6-27-63

ALTIMETER SETTING (in.) (12)	REMARKS AND SUPPLEMENTAL CODED DATA (13)	STATION PRESSURE (in.) (17)	DRY BULB (°F) (18)	WET BULB (°F) (19)	TOTAL SKY COVER (21)	TOTAL OPAQUE SKY COVER (24)	OBSERVER'S INITIALS (15)
978		29.590			0	0	H.S.
978		29.590			0	0	H.S.
978		29.590			0	0	H.S.
978		29.590			0	0	H.S.
000		29.610			1	0	H.S.
001	FEW AC / 49272	29.625			7	2	W.O.
003		29.640			3	0	W.O.
004		29.650			3	0	W.O.
004	FEW AC	29.650			1	0	W.O.
004	FEW CI	29.650			0	0	W.O.
003		29.640			2	1	W.O.
002		29.630			4	4	W.O.
999		29.605			4	4	W.O.
997		29.585			4	4	SL
915		29.565			4	4	SC
992		29.535			3	3	GH
992	TCU S-SW	29.535			3	2	GH
992	FEW TCU DSNT SW / 610 92	29.535			0	0	W.O.
992		29.535			1	1	GH
992		29.535			1	1	W.O.
994		29.555			5	2	GH
995		29.565			0	0	GH
994		29.555			0	0	W.O.
994		29.555			0	0	W.O.

SUMMARY OF DAY (MIDNIGHT TO MIDNIGHT)					REMARKS, NOTES AND MISCELLANEOUS PHENOMENA	
24-HR. MIN. TEMP. (°F) (67)	24-HR. PRECIP. WATER EQUIV. (in.) (68)	24-HR. SNOW FALL UNMLTD. (in.) (69)	SNOW DEPTH (in.) (70)			

Commerce-Weather Bureau, Washington, D. C.

Atch 1

Identification
SHREVEPORT, LOUISIANA
 Greater Shreveport Municipal Airport
 Lat. 32°28'N Long. 93°49'W
 Local Standard Time, 90th Meridian
 Sl of Station, 79M, RAWIN, GMD-1A

U.S. DEPARTMENT OF COMMERCE
 WEATHER BUREAU
WINDS-ALOFT COMPUTATION SHEET
 (LAND STATION FORM)
 WBAN-20

	Year	Month	Day	Time
Actual time	1963	JUN	25	2330
Scheduled (G.M.T.)	1963	JUN	25	0530
Ascension No. 707				

Type of balloon **DAREX-600**

Orientation, 360° = South

Slant range (m.) (yds.)	Pibal ht. above sfc. (m.) 30 gram 900 g/dm	Minute	Rawin ht. above surface (m.)	Elevation angle°		Distance from observation point (m.)	Azimuth angle °	Minute	Wind		Rawinsonde Time-Altitude Data			
				Observed	Smoothed				Direction° 360° = N. sfc. 130	Speed (m.p.s.) 2.1	Cont	Pressure (mb.)	Altitude (m., m.s.l.)	Elapsed time (min.)
	216	1	280	47.7		200	112.0	1	109	5.0	52	1011	79	0.0
	350	2	580	41.8		600	109.2	2	113	5.8	5	1014	—	—
	414	3	900	43.6		900	112.6	3	115	3.5	10	946	660	7.8
	612	4	1210	49.0		1050	111.7	4	102	1.6	15	880	1290	4.0
	990	5	1520	54.4		1100	110.8	5	353	1.0	20	816	1930	6.2
	1170	6	1810	59.9		1000	106.7	6	341	2.3	25	756	2570	8.4
	1880	7	2130	66.1		950	98.0	7	359	2.8	30	698	3210	10.4
	1350	8	2450	69.1		950	85.8	8	12	4.0	35	644	3890	12.5
	2170	9	2770	68.2		1100	71.2	9	18	5.0	40	591	4560	15.0
	1530	10	3070	67.3		1300	60.4	10	1	4.7	45	541	5280	17.1
	2455	11	3360	66.4		1400	48.7	11	5	4.5	50	494	6000	19.3
	1710	12	3650	65.2		1700	44.9	12	17	2.8	55	450	6700	21.5
	2740	13	3940	66.4		1700	43.3	13	96	1.3	60	407	7470	23.9
	1890	14	4210	66.9		1800	48.9	14	96	2.3	65	368	8210	26.3
	3020	15	4480	66.5		1950	52.2	15	84	3.0	70	330	9000	28.5
	2070	16	4810	66.1		2100	54.2	16	60	3.0	75	295	9800	30.8
	3300	17	5130	65.4		2300	54.1	17	49	4.5	80	262	10600	33.2
	2250	18	5500	64.1		2650	53.3	18	39	5.0	85	232	11400	35.6
	3580	19	5880	63.5		2900	50.7	19	15	4.6	90	204	12240	37.9
	2430	20	6200	63.5		3100	46.6	20	3	4.6	95	179	13090	40.2
	3855	21	6500	63.3		2300	43.3	21	3	4.4	100	155	13920	42.5
	2610	22	6810	63.0		3500	40.7	22	357	4.5	105	134	14500	44.9
	4130	23	7110	62.5		3700	37.2	23			110	114	15780	46.7
	2790	24		61.3			34.7	24	359	7.0	115	96	16840	49.1
	4405	25	7750	60.2		4400	30.4	25			120	88	17940	51.8
	2970	26		58.9			25.0	26	346	11.6	125	64	19320	54.9
	4675	27	8410	56.6		5500	20.0	27			130	50	20890	58.7
	3150	28		54.8			15.7	28	341	13.0	135	37	22800	62.7
	4945	29	9080	53.2		6800	11.9	29			140	24	25600	
	3330	30		51.7			9.2	30	345	10.0				
	5215	31	9760	50.7		7900	7.6	31			139A	25	25360	68.0
	3510	32		50.1			5.4	32	325	10.5				
	5485	33	10450	49.7		8900	2.3	33						
	3690	34		49.2			359.3	34	312	11.0				
	5755	35	11100	48.6		9800	356.4	35						

Punched Card Data

Altitude	Direction (degrees)	Speed (m.p.s.)	Card columns	Altitude	Direction (degrees)	Speed (m.p.s.)